

**Examining Group 2874**

FILED ELECTRONICALLY

PATENT APPLICATION  
Docket No. 15436.249.34.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	)	
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Jian He et al.	)	
	)	
	)	
Serial No.:	10/693,613	) Art Unit
		) 2874
Filed:	October 24, 2003	)
		)
For:	POLARIZATION MAINTAINING	)
	COUPLER	)
		)
Confirmation No.:	6482	)
		)
Customer No.:	022913	)
		)
Examiner:	Juliana K. Kang	)

**RESPONSE TO FINAL OFFICE ACTION**

Mail Stop **RCE**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the FINAL Office Action mailed May 10, 2006, the period for response extending to October 10, 2006 by the accompanying Request for Extension of Time, fee payment and Request for Continued Examination, reconsideration of the application is respectfully requested in view of the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the

distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

In the Office Action, claims 1-4 and 10-13 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,529,325 to Kokkelink et al. ("Kokkelink"); claims 11, 14, 15, 20-26, and 32-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kokkelink; claims 5-7, 9, 16, 17, 19, 23, 27-29, and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kokkelink in view of U.S. Patent No. 6,782,146 to Hellman et al. ("Hellman"); claims 8, 18, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kokkelink in view Hellman and further in view of U.S. Patent No. 6,292,604 to Cheng.

#### **Rejection Under 35 U.S.C. §102(e)**

Applicants respectfully traverse the rejection of claims 1-4 and 10-13 under 35 U.S.C. § 102(e) as being anticipated by Kokkelink because Kokkelink fails to disclose or suggest at least "wherein changing an angular orientation of said polarization axis relative to an optical axis of said at least one optical component changes a coupling ratio," as recited in claim 1. The Office Action alleges that Kokkelink discloses "adjusting the angle between the input and output beams by rotating wedges to reduce insertion loss and this inherently changes a coupling ratio." Office Action at 3. As discussed in M.P.E.P. § 2112, "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." *Citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient!'" *Citing In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Additionally, "[i]n relying upon the theory of inherency, the examiner must provide a basis in

fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Citing Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) (Applicant's invention was directed to a biaxially oriented, flexible dilation catheter balloon (a tube which expands upon inflation) used, for example, in clearing the blood vessels of heart patients). The examiner applied a U.S. patent to Schjeldahl which disclosed injection molding a tubular preform and then injecting air into the preform to expand it against a mold (blow molding). The reference did not directly state that the end product balloon was biaxially oriented. It did disclose that the balloon was "formed from a thin flexible inelastic, high tensile strength, biaxially oriented synthetic plastic material." *Id.* at 1462 (emphasis in original). The examiner argued that Schjeldahl's balloon was inherently biaxially oriented. The Board reversed on the basis that the examiner did not provide objective evidence or cogent technical reasoning to support the conclusion of inherency.).

Applicants disagree with the unsupported allegation of the Office Action, and the reasoning supplied in rebuttal to the previous Reply. In responding to previous arguments, the Office Action suggests that "tilting the birefringent wedges affect the light beam that passes through and inherently changes the coupling ratio." Office Action at 5. The Office Action also cites paragraph 26 of Applicants' specification as support for the proposition that "rotating" to adjust the coupling ratio would be inherent. A review of Kokkelink does not disclose the "rotating" as described in paragraph 26 of the Specification but rather only describes "tipping" in the plane of the light beams. Col. 3, lines 52-55. This arrangement is specifically discounted in the present Specification, maintaining that any such adjustment to the wedges results in "high excess insertion loss for the whole system," as taught in the specification at ¶ [022].

The Office Action simply fails to describe, or point to any description in any piece of art that describes, how changing the angle of the wedges of Kokkelink changes the coupling ratio, inherently or otherwise, in direct contradiction to the requirements of the M.P.E.P. § 2112, which states: "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." (Emphasis added).

Because Kokkelink does not disclose or suggest each and every claim limitation, claim 1 is in condition for allowance. Claims 2-4 and 10-13 each depend from independent claim 1 and

are allowable at least for their dependence on an allowable independent claim. Applicants respectfully request that the rejection under 35 U.S.C. § 102(e) be withdrawn.

**Rejections Under 35 U.S.C. § 103**

Applicants respectfully traverse the rejection of claims 11, 14, 15, 20-26, and 32-36 under 35 U.S.C. § 103(a) as being unpatentable over Kokkelink because Kokkelink fails to disclose or suggest all of the claim limitations as discussed above with respect to independent claim 1. Kokkelink also fails to disclose or suggest at least “wherein rotation of said input polarization maintaining fiber with respect to said at least one optical component changes a coupling ratio,” as recited in claim 15 and “rotating said input polarization maintaining optical fiber with respect to said optical component to change said coupling ratio,” as recited in claim 24. The Office Action seems to attempt to build on the unsupported allegation of inherent anticipation as applied to claim 1 by suggesting that “[s]ince Kokkelink et al. teach adjusting the angle between the fiber and second output bea[m]s for loss insertion by rotating the wedges, adjusting the input fiber . . . would also have been obvious to one of ordinary skill in the art . . . for optimum coupling efficiency.” Office Action at 3. The attempt by the Office Action to rely on an alleged disclosure by Kokkelink simply fails to address at least the limitation of “coupling ratio,” as well as apparently relying on the previous unsupported conclusory statement as applied to claim 1.

Because Kokkelink does not disclose or suggest each and every claim limitation, independent claims 1, 15 and 24 are in condition for allowance. Claims 11, 14, 20-23, 25, 26, and 32-36 are allowable at least for their dependence on an allowable independent claim. Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

Applicants respectfully traverse the rejection of claims 5-7, 9, 16, 17, 19, 23, 27-29, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Kokkelink in view of Hellman at least for the reason that neither reference discloses or suggests each and every claim limitation. As discussed above, Kokkelink fails to disclose or suggest at least one element from each of independent claims 1, 15 and 24. Hellman does not correct the deficiency and is not cited as such.

Because Kokkelink and Hellman do not disclose or suggest each and every claim limitation, independent claims 1, 15 and 24 are in condition for allowance. Claims 5-7, 9, 16, 17,

19, 23, 27-29, and 31 are allowable at least for their dependence on an allowable independent claim. Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

Applicants respectfully traverse the rejection of claims 8, 18, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Kokkelink and Hellman and further in view of Cheng. As discussed above, Kokkelink and Hellman fail to disclose or suggest at least one element from each of independent claims 1, 15 and 24. Cheng does not correct the deficiency and is not cited as such.

Because Kokkelink, Hellman, and Cheng do not disclose or suggest each and every claim limitation, independent claims 1, 15 and 24 are in condition for allowance. Claims 8, 18, and 30 are allowable at least for their dependence on an allowable independent claim. Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

Applicants intend to prepare a Pre-Appeal Brief Request for Review following the next Office Action should the present rejections be maintained due to the clear errors in the Office Action at supplying sufficient evidence to support the inherency and obviousness rejections.

### CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims. The Examiner is encouraged to contact the undersigned if the Examiner believes that a telephone interview or Examiner's amendment will further the prosecution of this application.

Respectfully submitted,  
WORKMAN NYDEGGER

Dated: October 10, 2006

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